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Links between local language competence and peer relations among Swiss and immigrant children: The mediating role of social behavior

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Abstract

The primary aim of this investigation was to evaluate a model in which children's social behaviors, including prosocial behavior, setting limits, and social withdrawal, were hypothesized to mediate the links between local language competence (LLC) and peer acceptance and victimization. Longitudinal data were collected via teacher and peer reports on 541 (286 boys and 255 girls) immigrant and Swiss native 5-to-6 year-old kindergarteners. Results showed the immigrant children were less fluent in the local language compared to native Swiss classmates. Moreover, results from structural equation models, with bootstrap tests of indirect effects, indicated that social behaviors mediated the link between LLC and the quality of children's peer relationships. Implications of these findings for school professionals are discussed, such as the need to help immigrant children make a smoother transition to their host communities by providing additional language and social supports while children acculturate and acclimate to their new surroundings and peer group.

Keywords: language competence, peer victimization, immigration, kindergarten, social behavior, peer relations

Links between Local Language Competence and Peer Relations among Swiss and Immigrant Children: The Mediating Role of Social Behavior

Educators and school professionals have long recognized the important roles that peers play in children's psychological and social development. Studies suggest that children who are able to form healthy peer relationships tend to be more socially competent (Fox & Boulton, 2006; Perren & Alsaker, 2006), academically successful (Wentzel & Caldwell, 1997), and less lonely and depressed (Erdley, Nangle, Newman, & Carpenter, 2001) than youth who have problematic peer relations. This latter group is of particular interest because children who are rejected (e.g., disliked by many of their peers; see Bukowski & Hoza, 1989) or victimized (e.g., bullied; see Olweus, 1993) by their peers are at-risk for a host of adjustment problems, including depression, loneliness, anxiety, low self-worth (Alsaker & Olweus, 2002; Hawker & Boulton, 2000; Kochenderfer-Ladd & Ladd, 1996; Perren & Alsaker, 2009), externalizing problems (Ladd & Troop-Gordon, 2003), and school disengagement (Kochenderfer-Ladd & Ladd, 1996).

Peer rejection and victimization have been found to be so detrimental to children's development that decades of research have been conducted on identifying the risk factors associated with poor peer relationships and delineating the processes through which such interactions affect children's adjustment (see Kochenderfer-Ladd & Troop-Gordon, 2010; Ladd, Kochenderfer-Ladd, & Rydell, 2011). For example, child factors, such as prosocial behavior and the ability to set limits on peer behavior (e.g., assertiveness), have been linked to peer acceptance and lower levels of victimization (Mostow, Izard, Fine, & Trentacosta, 2002; Rydell, Hagekull, & Bohlin, 1997; Wentzel & Caldwell, 1997), whereas withdrawn behaviour tends to be associated with peer rejection and higher levels of victimization (see Ladd, 2006). In addition to children's individual vulnerabilities or social competencies, features of the child's environment

have also been examined. For instance, researchers have examined family processes (e.g., Barker et al., 2008; Finnegan, Hodges, & Perry, 1998; Ladd & Kochenderfer-Ladd, 1998), school- and teacher-related policies and practices (Hanish, Kochenderfer-Ladd, Fabes, Martin, & Denning, 2004; Kochenderfer-Ladd & Pelletier, 2007; Roland & Galloway, 2002; Samara & Smith, 2008; Troop & Ladd, 2002) and peer group norms (Velásquez, Santo, Saldarriaga, López, & Bukowski, 2010) as predictors of peer victimization.

Although much has been learned from studies that have focused on either child risk factors or environmental factors, a fuller picture is likely to emerge when individual and environment factors are considered together (see Ladd, 2006). Thus, a child and environment framework was used to guide the present study.

Child Factors

Language and social competence. The premise of this study is that children's ability to communicate effectively with peers is associated with their social behavior such that their interactions with peers either promote or hinder the development of healthy peer relations. Support for this premise can be culled from empirical evidence showing that children who have language difficulties tend to be less prosocial and more withdrawn (Conti-Ramsden & Botting, 2004; Redmond & Rice, 2002); display more aggressive or externalizing problems; (Beitchman et al., 2001); are less well integrated in preschool play groups and school settings (Fujiki, Brinton, & Todd, 1996; Guralnick, Conner, Hammond, Gottman, & Kinnish, 1996); have difficulty making friends and are less accepted by their peers (Conti-Ramsden & Botting, 2004; Jerome, Fujiki, Brinton, & James, 2002); and are at greater risk for peer victimization (Perren, Stadelmann, & von Klitzing, 2009). By integrating previous findings into a single model (see Figure 1), we propose that communication problems, in this case brought on by not being

proficient in the local language, may interfere with children's ability to engage in skillful prosocial overtures and setting appropriate limits on peers' behavior. Moreover, children who have difficulty communicating with their peers may be more likely to withdraw from social interactions, thereby leaving them vulnerable to poor peer relationships.

Immigrant status. Because it is difficult to disentangle language development problems (e.g., delays and impairments) from other social issues and competencies in clinical samples of children, we examined our hypotheses in a non-clinical group of immigrant children who may face difficulties conversing effectively with peers because they are learning a language different from their native language. Moreover, by comparing immigrant children to their native Swiss counterparts, we were afforded the opportunity to examine if immigrant children were at greater risk for peer victimization than native Swiss children. For instance, investigators have shown that children of immigrant background often face unique challenges when negotiating relationships within a new peer group that leave them vulnerable to peer rejection and other problems relating to classmates. For example, in their cross-sectional study of native Swiss and immigrant kindergarten children, von Grünigen, Perren, Nägele, and Alsaker (2010) found that children with foreign-born mothers were at greater risk for low peer acceptance and frequent victimization.

However, findings are mixed in that some studies report that immigrant students are more involved in bullying than native peers (e.g., German-speaking countries; Fuchs, 1999), whereas others find no differences (Lösel, Bliesener, & Averbeck, 1999) or show that immigrant students are less involved than native classmates (Strohmeier, Atria, & Spiel, 2005; Strohmeier & Spiel, 2003). Mixed findings may be due to different definitions of bullying, differences in identifying immigrants, varying sample sizes with more or less power to detect group differences, and various degrees of acculturation (Tietjen, 2006), including the degree of cultural match between

the cultural norms and expectations of the home versus the host country (Chen & French, 2008; Schneider, Attili, Vermigli, & Younger, 1997).

Nevertheless, it is generally argued that immigrant children are at risk for social problems in their new schools as native-born students may not understand the issues that their immigrant peers encounter. For example, there are several correlates of immigrant status that potentially contribute to children's risk, including (a) level of acculturation, (b) low socioeconomic status (Baier & Pfeiffer, 2007), and (c) ethnic discrimination (Ridder & Dollase, 1999). However, for this study, the focus is on factors that may be more amenable to change. In other words, we consider child factors, including local language competences (LLC) and social competencies that teachers, school psychologists, and other school professionals could potentially target for special intervention to improve immigrant children's adaptation to school.

It is not being argued that immigrant children are at greater risk for victimization merely because of their foreign status, but rather we are suggesting that they are at greater risk because of the unique challenges they face in the classroom, especially those challenges due to language barriers and language-dependent social skills, such as initiating prosocial interactions and setting limits or boundaries with peers. Further, given the high degree of ethnocultural diversity in most countries and the ever-increasing immigrant populations, understanding the unique challenges of immigrant children and the difficulties they face adapting to new school cultures becomes an important undertaking in its own right. For instance, in Switzerland, 22% of schoolchildren come from families with an immigrant background (Bundesamt für Statistik, 2007).

Whether children are first- or second-generation immigrants, children with foreign-born parents face greater challenges in school than those with native-born parents (Kronig, Haeberlin, & Eckhart, 2000; Quintana et al., 2006; Ridder & Dollase, 1999; Verkuyten, 2006). Thus, for this

study, children were considered immigrants if at least one of their parents was foreign born (Rumbaut, 1994). This definition is not only more inclusive of children who may need additional assistance from teachers and school psychologists in adapting to the host school culture, but it also avoids debates over whether this study's participants should be considered first or second generation immigrants. That is, individuals who are foreign born are typically categorized as first generation, whereas those born in the host country to immigrant parents are viewed as second generation; however, some argue that children who arrive in the host country before they reach adulthood should be referred to as second (or "one-and-a-half") generation immigrants (Zhou, 1997). Consequently, we did not use generational status to identify immigrant children; rather, we based status on at least one of the child's parents being born outside of Switzerland. Thus, the terms "immigrant child" and "child of immigrant parents" were used interchangeably.

To our knowledge, there are no studies that directly address the hypothesis that poor LLC is a risk factor for peer relation problems via its influence on immigrant children's social behavior. However, some support for this hypothesis may be found in studies of children learning second languages. For example, Rice, Sell, and Hadley (1991) found that immigrant preschool children who were learning English as a second language (ESL) were less likely to initiate interactions and were more likely to be avoided by their peers compared to English-speaking preschool children. In another sample of children who were learning English as their second language, Gertner, Rice, and Hadley (1994) found that immigrant children's English proficiency was directly related to how well liked they were by peers. Similarly, a Swedish study showed that children's social position was not related to their immigrant background per se but rather to their proficiency in Swedish (Vedder & O'Dowd, 1999); that is, immigrant children with low competence in Swedish scored lower on sociability and leadership compared to other children.

Environmental Factors

Local language competence. Whereas language competence per se is considered a child characteristic, the language spoken in schools could be construed as an environmental factor. Although it may be difficult to discern when there is a match between children's native language and the school language, when there is a mismatch – such as occurs when immigrant children need to speak in the formal setting of school in a new language – the language spoken in the host country becomes a contextual barrier that they need to navigate. Thus, for the communities sampled in this study, Swiss German and German language were viewed as environmental factors that affected the degree to which children were viewed as competent in the local language.

Moreover, LLC not only may be a challenge for immigrant children in Switzerland, but LLC may also be an issue for Swiss children who move from one language area to another within the same country. That is, Switzerland comprises four distinct areas (German, French, Italian, and Rhaeto-Romanic), each with their own corresponding language spoken in their schools. Therefore, Swiss children who move to a language area that differs from their first language may also be confronted with similar challenges faced by immigrant children. Although, for this study, native Swiss children were not identified by area of origin, it is possible that some of the native Swiss children will evidence low LLC based on using Swiss German and German as the local language of interest. Thus, it was of interest to examine if the model shown in Figure 1 fits the data for both immigrant and native Swiss children.

Kindergarten. Because young children tend to learn new languages relatively quickly (see e.g., Johnson & Newport, 1989), especially when they are immersed in the new language through school and social activities (Jia & Aaronson, 1999), low LLC may be temporary as children become more experienced conversing with peers in the local language. Thus, data were

gathered on kindergarten children during a period in which they are just beginning to interact on a regular basis with their peers. It was also anticipated that such a design would allow an examination of LLC over time. Specifically, studies show that engaging in positive social interactions increase children's competencies through opportunities for practicing language skills, role modelling, and receiving natural consequences and feedback (Gallagher, 1993; Rice, 1993). Thus, we also tested the assumption that LLC would improve with more frequent and positive social interaction (see positive pathway from prosocial behavior to LLC and negative path from withdrawn behavior to LLC in Figure 1).

Summary of Hypothesized Mediation Model

In sum, the aim of this investigation was to test a model (see Figure 1) in which children's social behaviors, including prosocial behavior, setting limits, and social withdrawal, were hypothesized to mediate the links between LLC and peer acceptance and victimization. The model was tested using a sample of Swiss kindergarteners that included both immigrant and native children to determine if the associations between LLC and peer relations were unique to immigrant children or if low LLC was a risk factor for native Swiss children as well (e.g., those who may have migrated from another language area in Switzerland). It was hypothesized that immigrant children would (a) score lower in LLC, (b) evidence lower levels of socially skilled behavior and greater social withdrawal, and (c) be less liked and more victimized by peers than Swiss children. Moreover, although it was hypothesized that immigrant children were at greater risk for peer problems because of low LLC, the longitudinal mediation model shown in Figure 1 was expected to fit the data equally well for both Swiss and immigrant children.

Method

Sample and Study Design

A clustered sampling design was used to randomly select participating classrooms as part of a larger longitudinal project on bullying in kindergarten. First, official statistics from the Swiss Federal Statistical Office (www.bfs.admin.ch) were used to select 19 communities that were representative of the varied economic, educational, and cultural backgrounds of the German-speaking part of the canton of Bern. Next, the school authorities of 19 communities were approached for permission to conduct the study in their kindergarten classrooms; permission was granted for 67 of 73 kindergarten classrooms. Then, parental permission forms were sent home with all children attending the identified 67 classrooms, and informed consent was obtained for 1,106 children (contributing to a 97.5% participation rate). For various reasons, such as the family moving, illness, or in a few cases, parents revoking their consent, the sample at Time 1 (T1) included 1,090 children (96% of the initial sample). Lastly, while teachers completed a short questionnaire for all children at T1, to reduce the burden on teachers' time, assessments of social behaviors were completed only for a randomly selected subsample (N = 541) of children. Moreover, no data were collected on children's social behaviors at Time 2 (T2). Thus the final sample consisted of the 541 children for whom T1 behavioral ratings and T1 and T2 language competence, peer acceptance, and peer victimization were collected. This sample included 286 boys and 255 girls. The average age at T1 was 5.89 years (SD = .57 year) and the average age at T2 was 6.42 years (SD = .57 year).

Approximately 62% (n = 338) of children were identified as native Swiss, and approximately 38% (n = 203) were identified as coming from immigrant backgrounds (see the Measures section that follows). Moreover, although all participating children were in kindergarten, in Switzerland most children start school at the age of 5 and remain in kindergarten for 2 years[1]. Thus, in the current study, participating children were together in mixed-age

classrooms: 98.80% of the Year 1 kindergarten sample is between 4 years, 6 months and 5 years, 6 months and 99.70% of Year 2 kindergartners are older than 5 years 7 months (with a range of 5 years, 7 months to 6 years, 6 months).

Measures

Parental background. Both teachers and parents were asked to indicate the country of origin of father and mother separately. When available, parents' information was used because it was more likely to be accurate; otherwise teachers' responses were used. For the 75% of cases in which both teacher and parent data were available, there was 99.00% concordance in reporting of parents' country of origin between teachers and mothers and 95.90% concordance between teachers and fathers. Children with immigrant backgrounds (n = 203) had parents who came from many nations (e.g., 9% were Ex-Yugoslavian and Albanian, 5.6% had Asian backgrounds, 5.2% were from the United Kingdom, United States of America, and Germany combined, 4.9% were from Italy, 4.1% were from various South European countries, 3% were from Turkey, 1.7% had African backgrounds, and so forth), which reflects the multi-nationality of many Swiss schools. It was not practical to differentiate national subgroups because subsamples would have been small.

Teacher-reported local language competence (LLC). The LLC of the child was measured by teachers' ratings of the child's proficiency in Swiss German or German. Specifically, teachers responded to the question, "How well does the child speak Swiss German or German?" by rating the degree of competence on a five-point scale: 1= *does not speak the language*, 2 = *poor*, 3 = *mediocre*, 4 = *well*, 5 = *very well*. The mean at T1 was 4.12 (SD = 1.12) and at T2 it was 4.17 (SD = 1.01). Although this single item does not allow us to differentiate among specific aspects of language competence (e.g., social and academic language, expressive and receptive vocabulary, or word articulation and discrimination and grammar; see Beitchman et

al., 2001; Conti-Ramsden & Botting, 2004), it was deemed adequate for the purposes of this study because our main interest was not to assess children's language development per se, but to obtain data about children's basic ability to speak to others in the school's local language (implying understanding and production of oral language). Further, teachers are in a unique position to report on their students' LLC because they are trained to attend to their students' oral (as well as written) communication, are required to make regular academic reports on their students' language progress, and are witness to their social interactions on a daily basis, in many different contexts, and with various classmates. Moreover, Llosa (2007, 2008) has shown that teachers' overall assessment of their students' language proficiency is consistent with standardized measures[2]. Thus, although a single item is used, this rating is based on expert observations of many social interactions over extended periods of time, and it was deemed sufficient for this study as a measure of how well children communicate with their peers in everyday interactions.

Social behaviors. Teachers were asked to rate how true various descriptors of three types of social behaviors were of their individual students. For all three scales, ratings were made on a 4 point scale from 1 = *not at all true of the child* to 4 = *really true of child*. The 4-item prosocial scale consisted of items adapted from existing measures (e.g., Ladd & Profilet, 1996; Tremblay et al., 1992). Specifically, the items were (a) "He/she voluntarily shares with others." (b) "He/she often helps other children." (c) "He/she shows empathy for others." and (d) "He/she comforts others if necessary." These four items were averaged together to produce a prosocial score (M = 2.85; SD = 0.66; Cronbach's α = .87). Alsaker and Valkanover's (2001) setting limits scale was used, which consists of three items, including (a) "He/she can defend him/herself." (b) "He/she refuses unreasonable requests." and (c) "He/she is able to set personal limits." Scores were

calculated by averaging across the items (M = 2.87; SD = 0.66) and adequate reliability was demonstrated (α = .76). Finally, withdrawn behavior was measured using a composite of six items adapted from existing measures. Specifically, four items from Ladd and Profilet's (1996), Child Behavior Scale were used: (a) "He/she prefers to play by him or herself." (b) "He/she prefers to be alone." (c) "He/she withdraws from other children." and (d) "He/she prefers to watch rather than to participate in group activities." An additional two items from Asendorpf's (1992) shyness measure also were included: (a) "He/she takes a long time to warm up when meeting with other children" and (b) "He/she is shy when interacting with other children." Children's scores were computed by averaging across the six items, M = 1.97; SD = 0.68; Cronbach's α for withdrawn behavior = .87.

Peer acceptance. To assess children's peer group acceptance, a peer-nomination technique was used at both time points (Coie, Dodge & Coppotelli, 1982). Specifically, the bus-trip interview was used. In this interview, children are asked to imagine they are going on a bus trip and that they can invite up to six classmates from their kindergarten class to come with them (Alsaker, & Gutzwiller-Helfenfinger, 2010; Perren & Alsaker, 2006; von Grünigen et al., 2010). This measure correlates with teacher reports of peer victimization (r = -.26; see Perren, vonWyl, Stadelmann, Bürgin, & von Klitzing, 2006). Peer acceptance scores were created by averaging the number of nominations children received to reflect the percent of classmates who nominated them (range = .00 to .92, T1 M = .38 (SD = .21), T2 M = .39 (SD = .21).

Peer victimization. Perren and Alsaker's (2006) teacher-report form of students' peer victimization was used to assess the frequency of peer victimization. Although investigators have concluded that teachers are valid and reliable reporters of young children's peer victimization experiences (Griffin & Gross, 2004; Ladd & Kochenderfer-Ladd, 2002), to increase the reliability

and validity of their ratings, all kindergarten teachers participated in a 2.5 hour workshop prior to data collection procedures. The workshop was provided to ensure that teachers all received the same information regarding definitions of bullying and peer victimization, including how bully/victim problems differ from peer conflicts and aggressive behavior in general and the varied manifestations of victimization (i.e., direct and indirect forms of bullying). Teachers were also shown a sample questionnaire and invited to ask questions about the bullying questionnaire to ensure their understanding of the rating scale and specific items. The goal was to reduce biases across teachers in their understanding of bullying and increase uniformity of reporting on their students' victimization experiences.

For this measure, teachers rated each of their students on four types of victimization using a 5-point scale (1 = *never*, 2 = *seldom*, 3 = *once or several times a month*, 4 = *once a week*, 5 = *several times a week*): (a) physical victimization (e.g., being hit, kicked, pinched, or bitten), (b) verbal victimization (e.g., being laughed at, called names, or teased), (c) being excluded by other children, and (d) having property hidden or destroyed. The four items were averaged to create a victimization scale (T1: M = 1.64, SD = 0.76; T2: M = 1.64, SD = 0.75); the scale evidenced good internal consistency (Cronbach's α = .83 at both time points).

Results

Overview of the Statistical Analyses

First, intraclass correlation (ICC) and design effect statistics were computed to determine whether or not multilevel modelling (MLM) was needed to account for potential within classroom dependency. ICCs ranged from .09 to .23, and design effect estimates ranged from 1.28 to 2.64. For most variables, the design effect estimates did not exceed the 2.0 threshold recommended by Muthen and Satorra (1995); specifically, only the estimates for peer

victimization variables were greater than 2.0 (design effect estimates = 2.11 and 2.64 for T1 and T2, respectively). For all other variables, design effect estimates ranged from 1.28 to 1.89. Thus, MLM was not used; however, statistical analyses controlled for potential dependency of the data due to the clustering of students within classrooms.

Next, a confirmatory factor analysis was used to examine the factor structures of the social behaviour measures at the initial time of the assessments (T1). Then, a MANOVA was conducted to determine if the study variables differed as a function of child's sex, immigrant status, or time in kindergarten (i.e., one or two years). Finally, concurrent and longitudinal mediation models were tested using SEM, and a multi-group comparison approach was employed to examine if the models fit the data equally for native Swiss and immigrant children.

Measurement model

The measurement model shown in Figure 2 was examined to ensure that the social behavior items factored as hypothesized onto their respective latent variables. Specifically, three latent constructs were created, including Prosocial Behavior with 4 indicators, Setting Limits (with 3 indicators), and Withdrawn Behavior (with 6 indicators). The nested nature of the data was controlled for by specifying clustering by classrooms within Mplus 6 (Muthén & Muthén, 2004). Using Hu and Bentler's (1999) recommendations to evaluate model fit (i.e., comparative fit index (CFI) ≥ .90 for *adequate* fit, the root mean square of approximation (RMSEA) ≤ .08 for *moderate* fit, and standardized root mean squared residual (SRMR) ≤ .08 for *good* fit), fit indices for the measurement model indicated an adequate to good fit to the data, CFI = .94, RMSEA = .065, and the SRMR = .054. Moreover, all indicators loaded significantly on their respective latent variables (see items and standardized factor loadings in Figure 2).

Descriptive Results

A 2 (immigrant or native) x 2 (grade; 1st or 2nd year of kindergarten) x 2 (sex) MANOVA analysis was conducted to examine immigrant status, grade and sex effects on all study variables (i.e., local language competence, peer acceptance and peer victimization at both T1 and T2 and prosocial tendencies, setting limits and withdrawn behavior at T1). All main and interaction effects were tested. Omnibus results indicated significant main effects of immigrant status, $F(9, 525) = 35.77$, $p < .001$; grade, $F(9, 525) = 6.69$, $p < .001$; and sex, $F(9, 525) = 7.33$ $p < .001$, and a sex-by-immigrant status interaction, $F(9, 525) = 2.30$, $p < .001$. No other 2- or 3-way interactions were statistically significant.

Univariate *F*-tests for immigrant status showed that, consistent with expectations, children of immigrant backgrounds evidenced lower LLC and were rated as less prosocial than native Swiss children. Moreover, immigrant children tended to be less accepted by peers as well as more victimized than native Swiss classmates (see Table 1 for means and standard deviations).

Grade effects showed significant differences on all variables, except peer victimization at T1 (see Table 2). Specifically, first-year kindergartners had lower LLC, were less prosocial and less likely to set limits with peers and to be more withdrawn than their peers in their second year of kindergarten. Children in their first year of kindergarten also tended to be less accepted and more victimized (although only at T2) than those in their second year.

Mean sex differences were found (all *p*s < .05) for prosocial behavior, $F(1, 533) = 50.24$, $\eta = .09$, setting limits, $F(1, 533) = 7.03$, $\eta = .01$, and peer victimization, $F(1, 533) = 11.37$ and 18.00 and ηs = .02 and .03 for T1 and T2, respectively. Girls were rated higher on prosociability (*M*s = 3.09 and 2.63 for girls and boys, respectively) and limit setting (*M*s = 2.97 and 2.77 for girls and boys, respectively), whereas boys (*M*s = 1.75 and 1.78, at T1 and T2, respectively) were more frequently victimized than girls (*M*s = 1.51 and 1.48 at T1 and T2).

Sex-by-immigrant status interactions were found for withdrawn behavior, $F(1, 533) = 5.70$, $p < .05$), and T1 victimization, $F(1, 533) = 6.65$, $p < .05$. A breakdown of these interactions showed that native Swiss girls ($M = 1.83$) were less withdrawn than boys of Swiss mothers ($M = 2.06$) or immigrant children of either sex (Ms = 2.02 and 1.90 for girls and boys, respectively) and immigrant boys were more victimized than any other group (T1 Ms = 1.94, 1.64, 1.53, and 1.50 for immigrant boys, native boys, immigrant girls, and native girls, respectively).

Mean scores for victimization were below 2.00 for all groups, suggesting that most children are rarely victimized; however, additional analyses were conducted to explore immigrant children's risk for victimization. Specifically, victimized children were identified based on victimization scores of 3 or higher (i.e., reflecting victimization occurring at least once a month). This procedure resulted in 37 children (6.8% of sample) being identified as victims at T1 and 44 (8.1%) being identified as victims at T2. Moreover, an examination of the victim group revealed that immigrant children were almost twice as likely to be identified as victims compared to native Swiss children. Specifically, of the 37 victimized children at T1, 17 were immigrants (8.4% of the immigrant sample) compared to 20 native Swiss (5.9% of the Swiss sample). At T2, 21 of the 44 victims were immigrants (10.3% of the immigrant sample) compared to 23 native children (6.8% of Swiss sample). Moreover, chi-square tests revealed that these differences were statistically significant at T2 (using one-tailed tests based on directional a priori hypothesis), T1 $\chi^2_{(1)} = 1.57$, $p = .13$ and T2 $\chi^2_{(1)} = 3.44$, $p < .05$.

Although cell sizes were small, a one-way MANOVA, $F(5, 535) = 75.51$, $p < .001$, was conducted to compare four groups: immigrant victims ($n = 17$), immigrant nonvictims ($n = 186$), Swiss victims ($n = 20$) and Swiss nonvictims ($n = 318$) on LLC, prosocial behavior, setting limits, withdrawn behavior, and peer acceptance. Bonferroni post-hoc tests conducted on the means

reported in Table 3 revealed that LLC was the lowest for the immigrant victim group, followed by the immigrant nonvictim group. Swiss victims did not differ from their nonvictimized counterparts on LLC. Results also showed that both victim groups were less prosocial than either of the other two groups, although the immigrant nonvictims were significantly less prosocial than their Swiss counterparts. Finally, the native Swiss children were better accepted than any of the other three groups, which in turn, did not differ from each other. No differences were detected for setting limits or withdrawn behavior.

Finally, correlations were computed to examine if child's sex should be included in the evaluation of the hypothesized model. Specifically, it was of interest to determine if the relation between LLC and the social behaviors differed by sex. Correlations were transformed to Fisher's z_rs and compared using z-tests. Results indicated that the correlations did not differ by sex: (a) LLC with prosocial behavior (girls' $z_r = .35$ v boys' $z_r = .25$), $z = 1.27$, $p = .20$; (b) LLC with setting limits (girls' $z_r = .23$ v boys' $z_r = .12$), $z = 1.39$, $p = .16$; and (c) LLC with withdrawn behavior (girls' $z_r = -.23$ v boys' $z_r = -.08$), $z = 1.80$, $p = .07$. Thus, sex was not included in further analyses.

Structural Equation Modelling

Concurrent and longitudinal structural equation models were evaluated using Mplus 6 (Muthén & Muthén, 2004) with maximum likelihood robust estimations (MLR). Model fit statistics were evaluated using criteria recommended by fit Hu and Bentler (1999) and Kline (1998): CFI ≥ .90 for *adequate* fit, RMSEA ≤ .08 for *moderate* fit, and SRMR ≤ .08 for *good* fit.

Concurrent mediation model. Prior to testing the longitudinal mediation model, a concurrent model was evaluated to examine the relations among the constructs at the beginning of the school year. Specifically, the latent mediator variables, specifically, Prosocial Behavior,

Withdrawn Behavior and Setting Limits were all specified to mediate the link between local language competence (LLC) and peer acceptance and peer victimization. For these analyses, we controlled for the clustering of students within classrooms. Results indicated an adequate to good fit to the data, CFI = .93, RMSEA = .061 and SRMR = .052. Next, a group comparison approach was used to examine if the model fit native Swiss children and immigrant children equally well. Specifically, a fully constrained model in which all paths were set to be equal across groups was compared to a fully unconstrained model. Both models evidenced an adequate fit to good fit to the data (fully constrained model: $\chi^2_{(215)} = 433.33$ (scaling correction factor (SCF) for MLR = 1.118), CFI = .93, RMSEA = .061 and SRMR < .066; fully unconstrained model: $\chi^2_{(206)} = 422.42$ (SCF for MLR = 1.115, CFI = .93, RMSEA = .062 and SRMR < .063). However, the Sattora-Bentler Scaled chi-square difference test with a Difference Test Scaling Correction (CD) of 1.19 (for use with MLR estimations; see Muthén & Muthén, 2005), $\Delta \chi^2_{(9)} = 11.35$, $p = .25$, was non-significant indicating that unconstraining the parameters did not improve the model fit. Thus, the model appears to fit both groups equally well. Standardized estimates for statistically significant paths are shown in Figure 3; non-significant paths are denoted by a dashed line.

Findings for this model show that Prosocial Behavior and Setting Limits mediated the paths from LLC to both peer acceptance and peer victimization. Moreover, bootstrapped estimates indicated that all mediated paths were statistically significant (see Table 4 for standardized and unstandardized estimates and 90% CIs for the standardized estimates).

Longitudinal mediation model. The hypothesized longitudinal mediation model shown in Figure 1 was evaluated. Results indicated an adequate to good fit to the data, CFI = .93, RMSEA = .061 and SRMR = .081. Moreover, a group comparison approach indicated that the model fit the two groups equally. Specifically, a fully constrained model in which all paths were

set to be equal across groups, $\chi^2_{(302)} = 625.59$ (SCF for MLR = 1.085), CFI = .92, RMSEA = .063 and SRMR < .100, was compared to a fully unconstrained model, $\chi^2_{(288)} = 606.42$ (SCF for MLR = 1.080), CFI = .92, RMSEA = .064 and SRMR < .091), and the chi-square difference test using MLR (i.e., Satorra-Bentler scaled chi-square (CD = 1.188); see Muthén & Muthén, 2005), $\Delta \chi^2_{(14)} = 20.06$, $p = .128$, was not statistically significant. Thus, unconstraining the parameters did not significantly improve the model fit. Standardized path coefficients for significant estimates are shown in Figure 4; dashed lines denote non-significant paths.

Results showed that Prosocial Behavior, Setting Limits and Withdrawn Behavior all mediated the link from initial levels of LLC to changes in peer victimization, but not peer acceptance. Moreover, engaging in more prosocial behavior was associated with increases in local language skills. Bootstrapped estimations indicated that all indirect effects were statistically significant (see Table 4 for standardized and unstandardized estimates and 90% confidence intervals for the standardized estimates).

Discussion

Findings from this investigation indicated that immigrant children are at greater risk for low peer acceptance and more frequent victimization; data suggest that immigrant children were almost twice as likely to be victimized compared to their native Swiss peers. Moreover, results offer support for the argument that local language competence (LLC) may underlie this risk via its effects on children's social behavior. Specifically, support was obtained for the hypothesized model in which language problems are associated with lower levels of prosociability and setting limits and greater withdrawn tendencies. Further, although the behavioral processes linking LLC to peer problems were found for both native and Swiss children, additional evidence suggests that low LLC may be a greater concern for immigrant children's peer relationships because (a) they

are more likely to evidence lower LLC than their native peers and (b) immigrant victims had significantly lower LLC than either immigrant nonvictims or Swiss victims. This study also contributes significantly to the study of peer victimization by highlighting an important yet understudied risk factor for social difficulties that is common to many children (i.e., low LLC). However, before discussing the primary findings in detail, mean group differences are discussed.

Group Mean Differences

Although not of primary interest for the current investigation, findings from this study were consistent with prior research on sex differences showing that boys tend to be less socially mature than girls and to be more involved in bully-victim interactions (Kochenderfer-Ladd & Ladd, 2010; Mostow et al., 2002; Perren & Alsaker, 2009; Perren, Groeben, Stadelmann, & von Klitzing, 2008). Specifically, boys were rated lower on prosocial behavior and limit setting and higher on victimization. Also, consistent with the literature, no sex differences were detected in peer acceptance and withdrawn behavior. Of perhaps more relevance to this study was that no mean sex differences were found for local language competence nor were any significant differences found in the correlations between LLC and social behaviors. Thus, findings for boys and girls were consistent with the extant literature, and there was no reason to hypothesize that the models would differ for boys and girls.

Similarly, grade differences were consistent with expectations based on school experience and maturation. Specifically, children who were in their second year of kindergarten had higher levels of LLC, were more likely to display prosocial and setting limit behavior, and were less likely to withdraw than classmates in their first year of kindergarten. They also tended to be better accepted and less victimized, possibly due to having an additional year to form positive friendships and hone their social skills. It is important to note that no grade by immigrant status

interactions emerged. Thus, hopefully, it is the case that immigrant children are also benefiting from having a year of kindergarten experience as they enter their second year.

Of more central interest to the current investigation, comparisons of immigrant and native children were, in general, consistent with our hypotheses. For example, as noted above, immigrant children tended to be rated significantly lower in LLC than Swiss children. Moreover, consistent with the argument that LLC may interfere with social interactions with peers, immigrant children were less likely than their Swiss counterparts to engage in prosocial behaviors. However, somewhat contrary to expectations, immigrant children were no less likely to set limits with peers nor were they more likely to be socially withdrawn. The former finding is particularly good news as being able to set appropriate limits with peers was associated with lower risk for peer victimization both concurrently and predictively.

Consistent with findings from previous studies of children in Swiss schools (Eckhart, 2005; Kronig et al., 2000), immigrant children were less accepted and more victimized by peers than Swiss children. Thus, this study offers additional support for the elevated risk immigrant children may face. This is important as some studies do not find that immigrant youth suffer from poor peer relations. For example, in studies of Austrian children, Strohmeier and colleagues (Strohmeier et al., 2005; Strohmeier & Spiel, 2003) did not find that immigrant children were more victimized than native peers. It is possible that differences were due to the age of the samples. Specifically, Strohmeier and colleagues studied 12- to 13-year-olds who may have had more time than the 5- to 6-year old children in the present study to adapt to their new country's culture, form friendships, and learn the local language (i.e., greater acculturation).

Relatedly, the operationalization of immigrant background might have influenced the results. In our study, parental background was used to define children's immigrant status. This

method allowed including children with foreign cultural background even if they or their parents were naturalized. Therefore, the group of children with immigrant background could be either first generation (i.e., born outside the host country) or second generation (i.e., born and raised in the host country). This method of classifying immigrant children may be influencing their adjustment in the host culture, such that first generation immigrant children may be facing more difficulties than second generation immigrant peers (Berry, Phinney, Sam, & Vedder, 2006; Hill & Torres, 2010; Suárez-Orozco & Rhodes, 2009). Thus, in future studies, it may be interesting to examine how immigration generation status, length of residence, ethnicity, country of origin, and so forth, may affect children's peer relationships.

While findings indicate that immigrant children are at elevated risk for peer victimization, and additional studies are clearly warranted to further examine this risk, the good news is that, for both immigrant and Swiss children, victimization was relatively rare. Nevertheless, when focusing on the most severely victimized kindergarteners, immigrant children were almost twice as likely to be targeted for harassment as Swiss classmates. Moreover, immigrant victims evidenced significantly lower levels of LLC, even when compared to immigrant nonvictims, thereby offering further support that LLC may be linked to risk for peer harassment. Additional research would be needed to determine if peer victimization is stable for this particular group of children or if their harassment declines as they become more proficient in the host language.

Paths from local language competence to peer relations. As hypothesized, language competence was associated with the three measures of social behavior. Specifically, higher LLC was predictive of greater levels of prosocial and setting limits tendencies as well as lower levels of withdrawn behavior. In turn, prosocial behavior and setting limits were significant mediators of the link between LLC and social relationships both concurrently and predictively, while

withdrawn behavior was a significant mediator only predictively of peer victimization. The role of each behavioral mediator is discussed in the following sections.

Consistent with the hypothesis that LLC is underlies, or at least contributes to, children's ability to engage effectively in prosocial skills, LLC was positively associated with prosocial behaviors. Thus, the role of LLC in the quality of children's peer relations becomes clearer when one considers the importance of prosocial behaviors in the development and maintenance of positive peer relationships. Specifically, prosocial behaviors reduce children's risk for peer victimization—both concurrently and longitudinally—and contribute to how well-accepted they are by their peers. Consequently, greater language competence helps decrease children's risk for peer victimization and increases the likelihood of being accepted by their classmates, via its relation with increased displays of prosocial actions. It is possible that prosocial behavior reduces risk of victimization because prosocial children are responding to bullies in socially approved and competent ways. It is also quite possible that such children may have a friend or two who are themselves more socially competent (Lamarche & Brendgen, 2006) and thus may be able to protect them against bullies (Fox & Boulton, 2006). In any event, findings suggest that language competence plays an important role in the degree to which children engage in prosocial behaviors with their agemates, either by increasing their confidence, or their abilities, to do so.

Local language competence appears to play a similar role in children's ability to set limits and boundaries with peers. Moreover setting limits appears to be just as important as prosocial skills in forming healthy peer relations; specifically, like prosocial behavior, setting limits was concurrently associated with lower levels of victimization and greater peer acceptance in addition to predicting reductions in peer victimization. This finding is consistent with previous studies which indicate that submissiveness, conceivably the opposite of setting limits, is a risk factor for

peer rejection and victimization (Schwartz, Dodge, & Coie, 1993). It is possible that setting limits conveys a specific type of assertiveness that helps children gain the respect of their peers that may contribute to both greater acceptance and less risk for peer victimization. For example, Perren et al (2008) found that setting limits is positively associated with children's sociability and leadership skills. The present findings further suggest that LLC is important for supporting children's engagement in such behaviors, because setting appropriate limits with their peers and refusing unreasonable requests, most likely require good communication skills delivered in such as way (e.g., with confidence) that allows them to effectively defend themselves against those who try to take advantage of them.

In comparison to prosocial behaviors and setting limits, the role of withdrawn behavior was not so clear. Contrary to expectations that withdrawn children would have problematic peer relationships (e.g., Rubin, Coplan, & Bowker, 2009), withdrawn behavior was unrelated to peer relationships in the concurrent model. Fortunately, withdrawn behavior was also not predictive of decreasing peer acceptance. Then, surprisingly, withdrawn tendencies actually were associated with *decreases* in victimization over the course of kindergarten. Because findings with withdrawn behavior were unexpected, we interpret them with caution.

It may be that withdrawn asocial behavior predicts decreases in victimization because young children are removing themselves from such abusive interactions and that by interacting less frequently with their peers, they are less likely to be targeted for aggression. However, it is also possible that the current operational definition of withdrawn behavior, which includes withdrawn, shy and asocial tendencies, is contributing to the unexpected association with peer victimization. For example, in a study of children of a comparable age, Coplan, Prakash, O'Neil and Armer (2004) showed that social disinterest and withdrawal, but not shyness, is associated

with peer exclusion (i.e., a form of victimization). Thus, investigators may need to distinguish between withdrawn, shy and asocial tendencies in future studies of these links.

Overall, findings from this study are consistent with the premise that local language skills are associated with children's social relationships through its relations with social behavior, especially prosocial proclivities and setting limits. Moreover, as mean differences confirmed that immigrant children struggle more with the local language than Swiss peers, they may be at greater risk for social problems than native speakers. Thus, educators may want to pay special attention to the social relationships of immigrant children as they hone their language skills.

Strengths and Limitations of the Study

Results from the current study provide a useful model for integrating previously unconnected findings on how deficits in language competence and social behaviors influence kindergarten children's peer relationships. By examining these relations longitudinally in a large representative sample of children, including a high proportion of children of immigrant backgrounds, we were able to examine the role of language competence among a sample of young children in typical kindergarten classrooms as opposed to focusing on clinical samples of children who have been diagnosed with language problems. However, as with any study, limitations exist. For example, tests of mediation were limited by not having social behavior data at T2. Consequently, we were not able to assess changes in social behavior over time or to test for bidirectional effects among variables. A stronger test of mediation would require having the same data collected at multiple times, preferably three or more time points.

It could be argued that shared method variance may have resulted in overestimating the strengths of the links among the study variables because, with the exception of peer acceptance, teachers reported on all variables. While acknowledging this limitation, steps were taken to

reduce some of the biases of teacher reports, such as the brief training teachers received in identifying and reporting on students' victimization experiences. Moreover, peer reports of victimization have been shown to be of questionable validity at this young age (see Ladd & Kochenderfer-Ladd, 2002), and some researchers have argued that teacher-reports of victimization are preferable to self-reports (see Perry, Kusel, & Perry, 1988). Thus, despite possible issues regarding the use of teacher reports of children's peer victimization (e.g., teachers not being privy to the full spectrum of peer interactions and teachers underreporting bullying in their classroom due to not wanting to be viewed as ineffective classroom managers), teachers have been shown to be reliable and valid reporters of young children's victimization experiences (see Ladd & Kochenderfer-Ladd, 2002), and studies show that kindergarten teachers' reports of bully/victim problems correspond well with peer nominations of bullies and self-reports of victims (Alsaker & Valkanover, 2001; Perren & Alsaker, 2006). Thus, at least for children under the age of 8 years old, teachers are arguably the best reporters of peer victimization.

Similarly, although standardized language tests may offer a different perspective on children's language skills, there are good reasons for preferring teacher reports for purposes of this study. For one, standardized tests tend to miss subtle ways in which children communicate socially with their classmates. For example, Dockrell (2001) argues that teachers are a reliable source of information on the communicative - linguistic proficiency of children and suggests language tests should always be supplemented with teacher questionnaires because standardized tests have a number of limitations. Similarly, Llosa (2007, 2008) reported that teachers' overall language proficiency ratings are a valid source of information. Moreover, there are only a handful of language proficiency tests which take children's immigrant status into account in the United

States (Fairbairn, 2009) and, to the knowledge of the authors, there are no such validated tests available in Switzerland for immigrant children.

Thus, although the reliance of teachers' reports on a single item to measure children's local language competence is clearly not as preferable as a multiple-item indicator, the use of teachers as opposed to any other informant (e.g., parent, peers, self, and observers) seems the most appropriate for estimating children's LLC because teachers are trained experts in assessing language competencies in their students. Nevertheless, future studies may benefit from including additional items or measures of language competence that could inform understanding of the reasons for language problems and to distinguish general verbal and cognitive problems from specific aspects of local language competence.

Another possible limitation is the reliance on positive nominations to assess peer acceptance. In particular, it could be argued that a lack of positive nominations does not necessarily reflect rejection (selected as disliked by many peers), but may indicate that children are "neglected" (i.e., peers do not select them as either liked nor disliked). Research examining more varied types of peer relations (i.e., popular, average, neglected, rejected) may prove fruitful in illuminating the associations between LLC and other types of peer relationships.

Findings also suggest that future studies including measures of acculturation may be warranted. Specifically, language competence may be construed as one part of the larger construct of acculturation (Birman & Tricket, 2001). For instance, in the validation of an acculturation scale, Suinn, Ahuna, and Khoo (1992) found that spoken, written, and preferred language (together with music and movie preference) accounted for 41.5% of the variance in a factor analysis, and language was found to be a key indicator of acculturation. Thus, additional studies may help illuminate differences among the effects of various aspects of acculturation on

children's peer relationships, including examinations of acculturation strategies (Berry, Poortinga, Segal, & Dasen, 1992), language preferences (Van de Vijver, Helms-Lorenz, & Feltzer, 1999), behavioral acculturation (e.g. movie or food preference of host country versus country of origin) and cultural identity (e.g., the extent of feeling part of, or proud of, the culture of the host country or native country; Birman & Tricket, 2001).

Implications for Prevention and Intervention

Victimization has serious short- and long-term consequences (Alsaker & Olweus, 2002; Hawker & Boulton, 2000), and although there are many possible reasons why some children may be especially vulnerable to bullying, results from this study suggest an understudied possibility: Children's difficulty conveying social information (i.e., setting limits, initiating prosocial interactions) to their peers, at least partially as a result of not speaking the local language of their classmates well, appears to be a risk factor for victimization. Such findings offer promising avenues for intervening with at risk populations, such as children of immigrant parents, who may be challenged by learning a new language. Specifically, in addition to teaching children the new language, as is most likely part of the normal kindergarten classroom curriculum, teachers and school psychologists could also point out nuances in informal social language use to immigrant children as well as to provide a school climate in which native children are encouraged to help newcomers learn the local language and customs. For example, they could prepare the peer group by educating students about cultural diversity and language differences that would improve their readiness and abilities to integrate immigrant children, or those from other parts of the country.

Moreover, by being aware of the influence language has on children's peer relationships, school professionals, such as school psychologist, counsellors, and teachers can help immigrant

families make a smoother transition to their host communities by providing additional language and social supports while children acculturate and acclimate to their new surroundings. Finally, school-wide bullying prevention and intervention programs may need to be adapted to take into consideration the unique needs of children who are struggling to learn the local language of their new communities. For example, cultural misunderstandings often arise from poor communication, poor choice of words, or social mannerisms that are customary in one culture, but are seen as disrespectful or rude in another. Future studies would clearly be helpful in identifying ways in which children's use, and expression, of language may differ across cultures, and what it truly means to be competent in a local language.

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Footnotes

[1]Most children in Switzerland attend pre-school education in kindergarten (ISCED 0; according to the taxonomy of the UNESCO institute for Statistics, www.uis.unesco.org) before they go to primary school (ISCED 1) after their seventh birthday. Attendance at kindergarten is voluntary and usually lasts for two years. Almost all (99%) children attend kindergarten for at least one year (Department for Kindergarten, School, and Counseling for the Canton of Berne). In the present sample, 36.6% of the children were in their first year and 63.4% in their second year of kindergarten. All children are together in the same age-mixed group and the curriculum is the same for all children (Lehrplan Kindergarten, Erziehungsdirektion des Kantons Bern, 2001).

[2]Llosa (2007) examined the extent to which teacher reports of students' English proficiency correlated with state standardized scores of English proficiency. Specifically, Llosa compared the English Language Development Classroom Assessment (ELD; teacher ratings) to the California English Language Development Test (CELDT; standardized test). The ELD and CELDT both cover three areas of English proficiency (i.e., listening/speaking, reading, and writing). The study showed that the evidence gathered via the ELD Classroom Assessment was consistent with that provided by the CELDT.

Table 1

Means for Main Effects of Immigrant Status

Measures	Immigrant children (N = 203)		Native Swiss children (N = 338)			
	M	*SD*	*M*	*SD*	*F*(1, 533)	η
T1 LLC	3.25	1.13	4.65	.72	274.54***	.34
T2 LLC	3.42	1.08	4.62	.64	241.36***	.31
T1 Prosocial behavior	2.65	.68	2.97	.65	24.36***	.04
T1 Setting limits	2.84	.65	2.88	.66	.13	.00
T1 Withdrawn behavior	1.99	.64	1.95	.70	.71	.00
T1 Peer acceptance	.31	.19	.42	.20	27.12***	.05
T2 Peer acceptance	.33	.19	.42	.21	18.04***	.03
T1 Peer victimization	1.75	.79	1.57	.73	6.10**	.01
T2 Peer victimization	1.73	.78	1.58	.73	4.69*	.01

T1 = Time 1; T2 = Time 2; LLC = local language competence.

*p < .05, **p < .01, ***p < .001.

Table 2

Means for Main Effects of Years in Kindergarten

Measures	1st year of kindergarten (N = 164)		2nd year of kindergarten (N = 377)			
	M	*SD*	*M*	*SD*	*F*(1,533)	η
LLC T1	3.78	1.28	4.27	1.02	12.61***	.02
LLC T2	3.88	1.11	4.29	.94	10.49**	.02
T1 Prosocial	2.62	.68	2.95	.65	20.68***	.04
T1 Setting limits	2.68	.62	2.95	.66	17.66**	.03
T1 Withdrawn	2.09	.71	1.91	.66	7.43***	.01
T1 Peer acceptance	.31	.19	.41	.21	22.15***	.04
T2 Peer acceptance	.33	.20	.41	.20	10.68***	.02
T1 Peer victimization	1.65	.80	1.63	.74	.01	.00
T2 Peer victimization	1.74	.78	1.59	.73	3.81*	.01

T1 = Time 1; T2 = Time 2; LLC = local language competence.

*p < .05, **p < .01, ***p < .001.

Table 3

Means for Victim Group Effects

Measures	Immigrant victims (n = 17)	Immigrant nonvictims (n = 186)	Native victims (n = 20)	Native nonvictims (n = 318)	F(3, 537)
T1 Local Language	2.32[a]	3.33[b]	4.58[c]	4.66[c]	114.04***
T1 Prosocial	2.04[a]	2.70[b]	2.40[a]	3.00[c]	21.69***
T1 Setting Limits	2.63	2.85	2.61	2.90	2.08
T1 Withdrawn	2.00	1.99	2.27	1.93	1.69
T1 Peer acceptance	.26[a]	.32[a]	.24[a]	.43[b]	17.61***

T1 = Time 1. *** $p < .001$.

Table 4

Bootstrapped estimates for indirect effects

Indirect Effects	Standardized estimates	Unstandardized estimates	90th Percentile Confidence Interval
Concurrent Mediation Model			
T1 LLC → T1 PRO → T1 PA	.015	.004	.009, .021
T1 LLC → T1 SL → T1 PA	.006	.003	.001, .011
T1 LLC → T1 PRO → T1 PV	-.067	.016	-.092, -.041
T1 LLC → T1 SL → T1 PV	-.029	.012	-.049, -.009
Longitudinal Mediation Model			
T1 LLC → T1 PRO → T2PV	-.025	.009	-.040, -.010
T1 LLC → T1 SL → T2 PV	-.017	.009	-.031, -.002
T1 LLC → T1 WTHD → T2 PV	.015	.007	.003, .027
T1 LLC → T1 PRO → T2LLC	.025	.009	.010 .041

T1 = Time 1; T2 = Time 2; LLC = local language competence; PRO = prosocial behaviour; PA = peer acceptance; SL = setting limits; PV = peer victimization; WTHD = withdrawn behaviour.

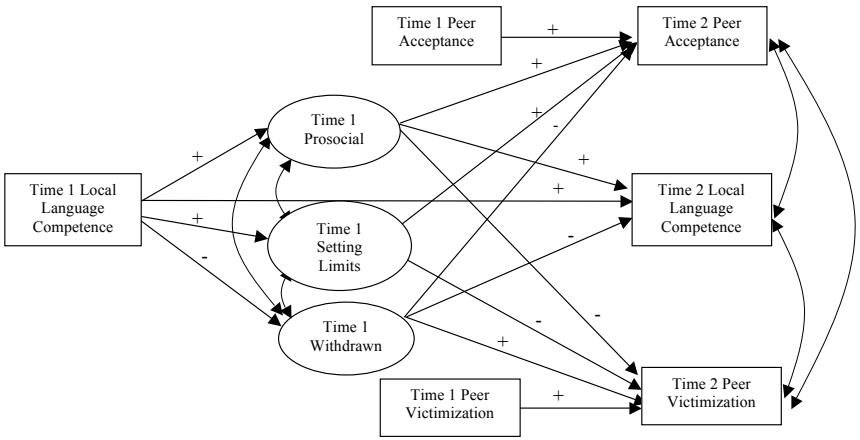

Figure 1. Hypothesized longitudinal mediation model predicting changes in peer acceptance and peer victimization from Time 1 to Time 2.

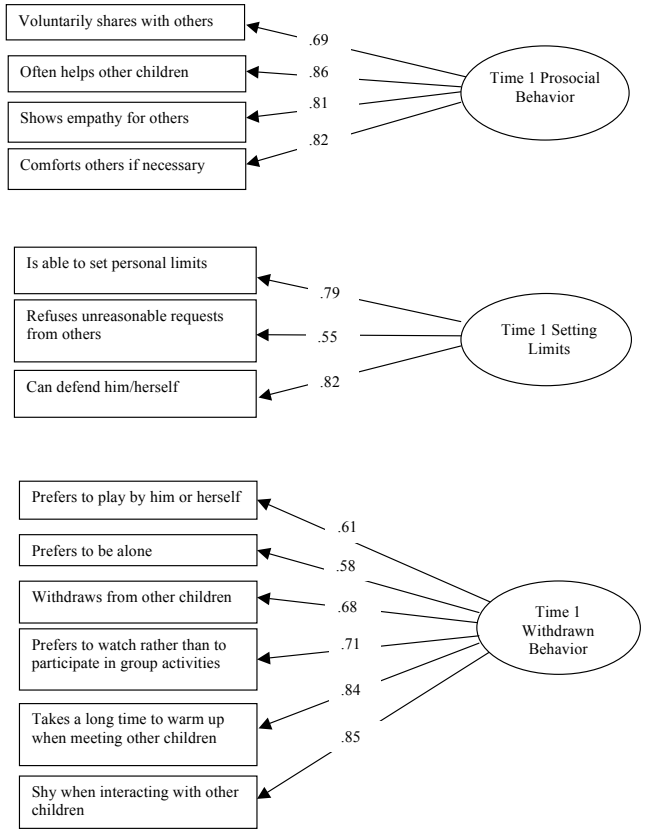

Figure 2. Measurement model with standardized factor loadings.

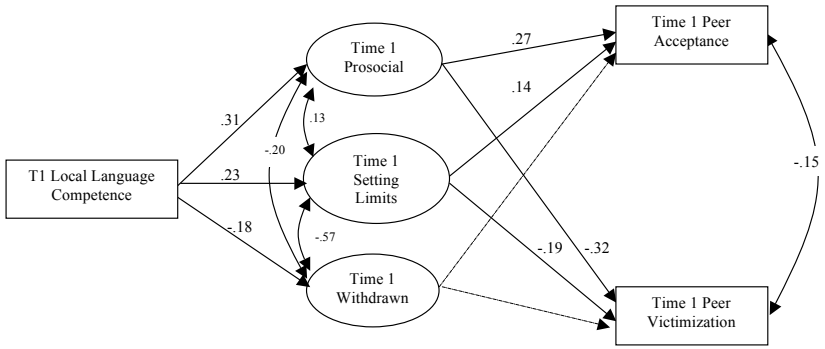

Figure 3. Concurrent mediation model with statistically significant ($p < .05$) standardized path coefficients reported. Dashed lines represent statistically non-significant paths.

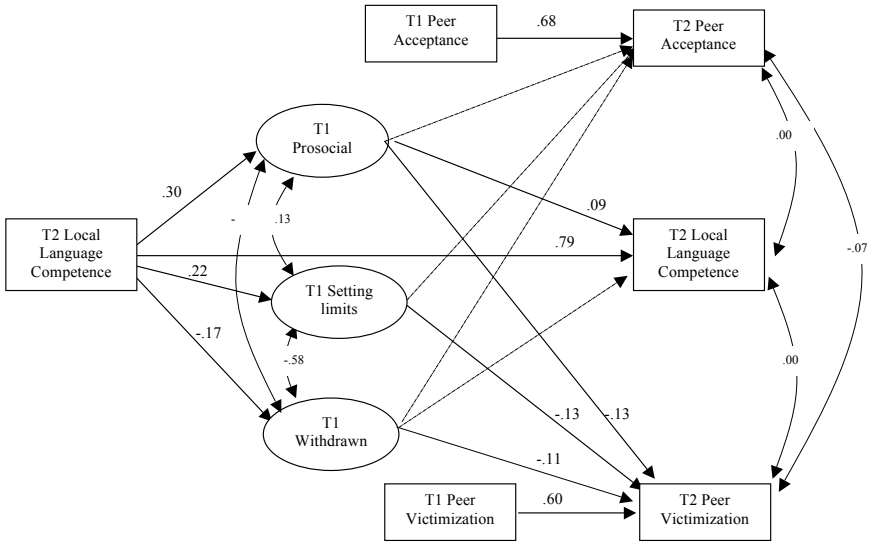

Figure 4. Longitudinal mediation model with statistically significant ($p < .05$) standardized path weights shown. Dashed lines denote statistically non-significant paths.